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Ma et al.

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- (54) **DIRECTED ENERGY DEPOSITION WITH COOLING MECHANISM**
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CPC **C23C 16/463** (2013.01); **B05B 3/00** (2013.01); **B23K 26/144** (2015.10); **B29C 67/00** (2013.01);
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CPC B23K 37/003; B23K 26/144; B23K 26/1464; B23K 26/147; B29C 64/153; B33Y 30/00; B33Y 40/00; C23C 16/463
See application file for complete search history.

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- (57) **ABSTRACT**
- A material deposition system and method for cooling a component after material deposition. The method of deposition and cooling comprising a platform, a deposition head, and a cooling mechanism. The platform adapted to support a component for the addition of material. The deposition head including a material depositor configured to deposit material on a surface of a component supported on the platform and an energy source configured to energize material deposited onto a surface of a component supported on the platform to bond the material to the component. The cooling system including bristles.

15 Claims, 3 Drawing Sheets

